

ABSTRACT

The present invention resides in a press, punch and die combination to be used to form and bend the separate extending beams diameter of a circular sheet metal disc with an over hanging edge.

- 5 One projection is bent and formed at a time. Then the disc is indexed. The over hanging shape is accomplished by having the axis center line of the punch at an acute angle to the surface of a die where a portion of the sheet metal rests while the other portion is formed with a groove or arc. A strong wheel of a large size is possible. In the
- 10 annealed state a 1/4 inch thick 1095 spring steel for a 22" diameter wheel with 24 beams is easily formed one at a time. When hardened this material has an elastic limit of 150,000 to 310,000 psi.